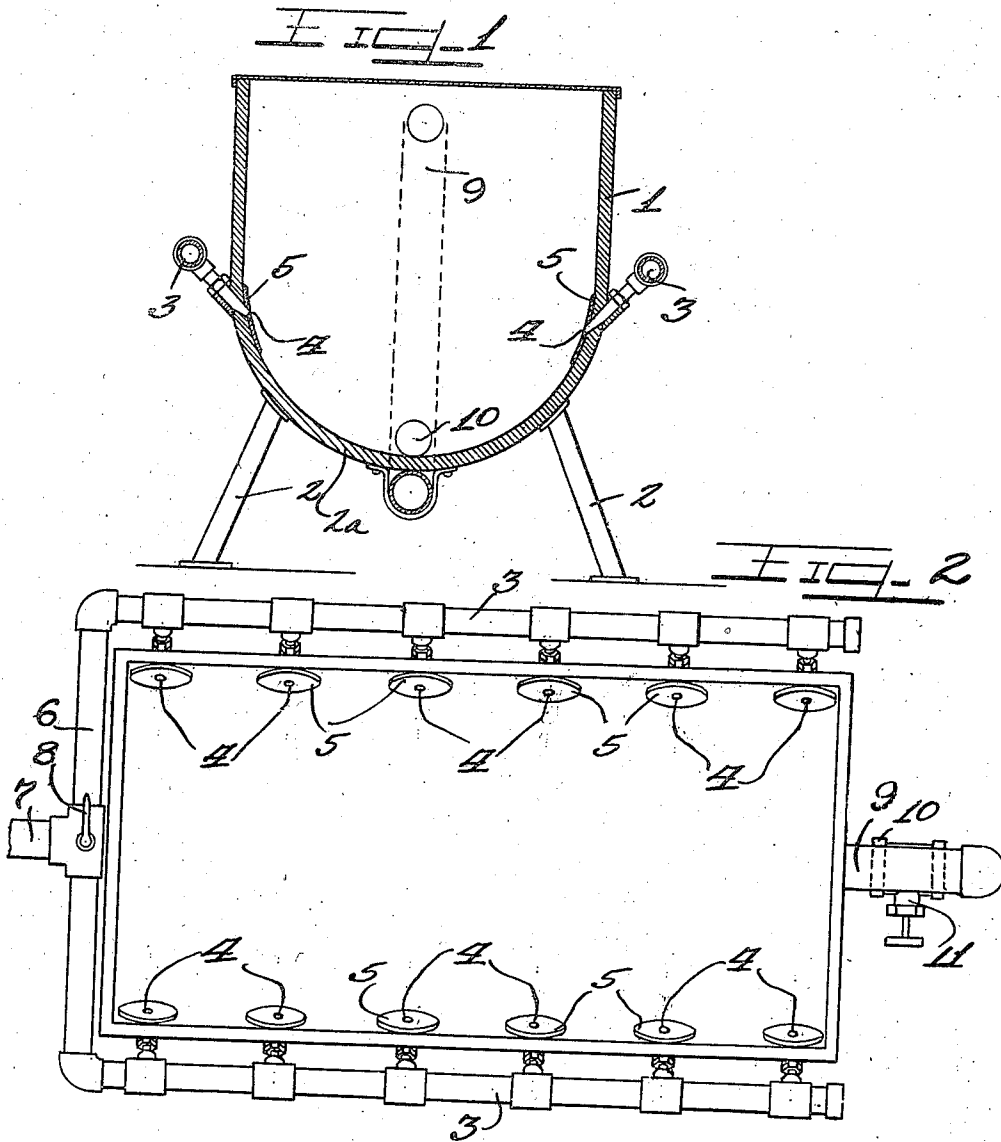


O. H. ELIEL.
 WASHING MACHINE.
 APPLICATION FILED AUG. 30, 1920.

1,436,700.

Patented Nov. 28, 1922.



WITNESSES

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UNITED STATES PATENT OFFICE.

OSCAR H. ELIEL, OF LA SALLE, ILLINOIS.

WASHING MACHINE.

Application filed August 30, 1920. Serial No. 406,939.

To all whom it may concern:

Be it known that I, OSCAR H. ELIEL, a citizen of the United States, residing at La Salle, in the county of La Salle and State of Illinois, have invented a new and useful Improvement in Washing Machines; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawing, and the numerals of reference marked thereon, which form a part of this specification.

My invention relates more particularly to washing tubs in which a plurality of series of nozzles are employed to forcibly introduce the washing fluid in the form of jets upon the clothes and properly agitate the same.

It is therefore an object of this invention to provide means whereby the clothes may be agitated by the force of the jets of suds used in washing.

It is a further object of this invention to provide two series of jets, one opposed to the other for thoroughly washing and agitating the clothes.

It is also an object of my invention to provide means for alternately putting said jets in operation.

Other objects and advantages not specifically enumerated, will be apparent from the following description and disclosures in the drawings:

On the drawings:

Figure 1 is a vertical section through a washing tub embodying my invention.

Figure 2 is a top plan view thereof.

Referring now to the drawings in which similar reference numerals refer to similar features, the numeral 1 represents a tub for washing clothes which may be supported upon struts or legs 2. While this tub may be constructed of various designs, the bottom portion should have a contour to allow a rolling action to the clothes therein. Accordingly, I have illustrated a stationary tub having a curved bottom 2^a. The tub is preferably made long in relation to its width so that the washing and agitating of the clothes will be more readily accomplished. On each side of the tub, there is mounted a pipe 3, from which lead a plurality of spraying nozzles 4 spaced at suitable intervals. These nozzles slant downwardly into oblique apertures in the sides of the tub near the bottom curvature, and

they may be secured in the sides of the tub in any approved manner; plates 5 being shown on the nozzles to effectively seal the apertures in the sides of the tub. The pipes 3 are connected to a transverse pipe 6 extending across the front end of said tub and a supply pipe 7 leads to the pipe 6 and at the juncture of the pipes 6 and 7 a valve operable by a handle 8 is placed. Said valve may be so adjusted that the washing fluid can only enter one of the pipes 3 at a time.

At the rear end, the tub is provided with an overflow pipe 9 which may connect with the drain pipe 10 and pass underneath the tub, a valve 11 being preferably placed in the drain pipe 10 in order to empty the tub whenever desired.

Operations: Assuming that a proper consignment of clothes has been put in the tub, and that suitable washing suds have been provided which may be pumped into the supply pipe 7 or fed thereto by gravity, the handle 8 may then be turned to adjust the valve to admit the suds to either side of the tub 1 through the corresponding pipe 3. The nozzles 4 on that side of the tub will play upon the clothes and tend to roll them over to the opposite side on account of the force of the jets. After a sufficient interval of time, the valve handle 8 may again be adjusted to shut the washing fluid or suds off from that side of the tub and turn them on the opposite side. And as the jets are now directed upon the opposite side of the clothes, the clothes will tend to roll over toward the other side. Thus by alternately putting the two series of nozzles into operation, the clothes will be first moved to one side and then to the other side of the tub, by the force of the jets delivered from the nozzles, so they will be thoroughly agitated, and washed at the same time.

It will accordingly be observed that my invention embodies a novel mechanism for washing clothes in which jets of suds are so directed that the clothes are thoroughly agitated and washed without oscillating the tub.

I am aware that numerous details of construction may be varied through a wide range without departing from the principles of this invention, and I therefore do not purpose limiting the patent granted otherwise than necessitated by the prior art.

I claim as my invention:

1. A clothes washing device comprising a

tub, a series of nozzles projecting downwardly into each side of the tub, a pipe line connecting said nozzles, and a valve in said pipe line for alternately directing
5 cleaning fluids into said series of nozzles.

2. In a device of the class described, a relatively narrow tub having a curved bottom, nozzles projecting into the sides of said tub, and means for alternately supplying
10 cleaning fluids to the nozzles on each side of said tub.

3. In a device of the class described, a tub having straight vertical parallel side walls and a semi-cylindrical bottom, nozzles in
15 two rows, one row located at each of the

junctions of sides and bottom, said nozzles being inclined inwardly and downwardly, an overflow pipe and a drain connected to the tub, supply pipes connected to the nozzles, one pipe to each row, and means for
20 supplying cleansing fluids to said pipes, said means including a valve for sending the supply to the pipes alternately.

In testimony whereof I have hereunto subscribed my name in the presence of two sub-
25 scribing witnesses.

OSCAR H. ELIEL.

Witnesses:

CARLTON HILL,
EARL M. HARDINE.